## CONSERVATION

## United States Department of Agriculture Natural Resources Conservation Service

## **Manure Storage Eliminates Winter Application**



Steve Gustafson, of Boone, installed a concrete waste storage facility to eliminate the need to apply manure on cropland during the winter months.

Watching liquid hog manure run off snowcovered cropland bothered Boone County farmer Steve Gustafson, but he doesn't have to worry about it anymore. Gustafson won't be applying manure to his cropland during the winter months thanks to more storage capacity.

Gustafson built a concrete waste storage facility for his 2,000-head hog finishing operation last spring, to supplement the small manure pits that sit beneath his hog buildings. "We didn't have the capacity to store manure through the summer and winter months," he said. "We were spreading liquid manure in the wintertime, and that's a no-no."

Gustafson is a full-time postal worker, and farms with his brother, Larry, and his son, Jeremy. He has farmed since 1973. The family prides themselves on their conservation efforts. In 2006 they earned a contract through the old watershed-based Conservation Security Program, which rewarded producers for longtime commitment to conservation.

No signs of serious damage or water quality problems were detected from manure runoff on their farm, but the Gustafsons say they knew state and federal regulations regarding the timing of liquid manure application may soon become more stringent. "When you spread manure on snow, which is followed by a quick thaw, there is always some runoff issues, and I don't like that," said Gustafson.

The Gustafsons have filter strips – grass, trees and/or shrubs that filter runoff and remove contaminants before they reach water bodies – along all of their creeks. And, Gustafson says they installed several small grassed waterways the past couple years that also help to filter runoff. But the new concrete waste storage facility is the ultimate solution to eliminating runoff. It will hold enough manure for about 500 hogs, or for about six months.

The USDA's Natural Resources Conservation Service (NRCS) helped plan and design the new facility, and provided financial assistance through the Environmental Quality Incentives Program (EQIP).

EQIP is a voluntary conservation program that promotes agricultural production and environmental quality. This program is



Gustafson (left) talks to Boone County District Conservationist Kevin Kordick about his new waste storage facility.





available to farmers, and offers financial and technical assistance to install or implement structural and management practices on eligible agricultural land. "This EQIP assistance really came in handy," said Gustafson. "We wouldn't have been able to afford to build the manure pit without it."

The Gustafsons will now focus on a more environmentally-friendly way to apply manure to their 1,400 acres of cropland. For several years they have knifed manure directly into strips during fall or spring, depending on the weather, another way to greatly reduce the risk of manure runoff.

Along with the environmental benefits of the waste storage facility, Iowa NRCS Nutri-

ent Management Specialist Eric Hurley says Gustafson's manure storage structure will help maximize the economic value of his manure. "Depending on the price of N, P, and K, the manure from this operation could be worth \$20,000 to \$30,000 per year," he says. "Storage allows him to choose the best time of year to apply the manure for his crops and knifing it in puts the nutrients where the plants can use them."

For more information about environmentally-friendly ways to store, manage and apply manure, contact your local NRCS office, or visit www.ia.nrcs.usda.gov.

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by Jason Johnson, Public Affairs Specialist October 2009



Gustafson's new waste storage facility will increase storage capacity for his 2,000-head hog finishing operation. All other manure is stored in small pits below the hog buildings.